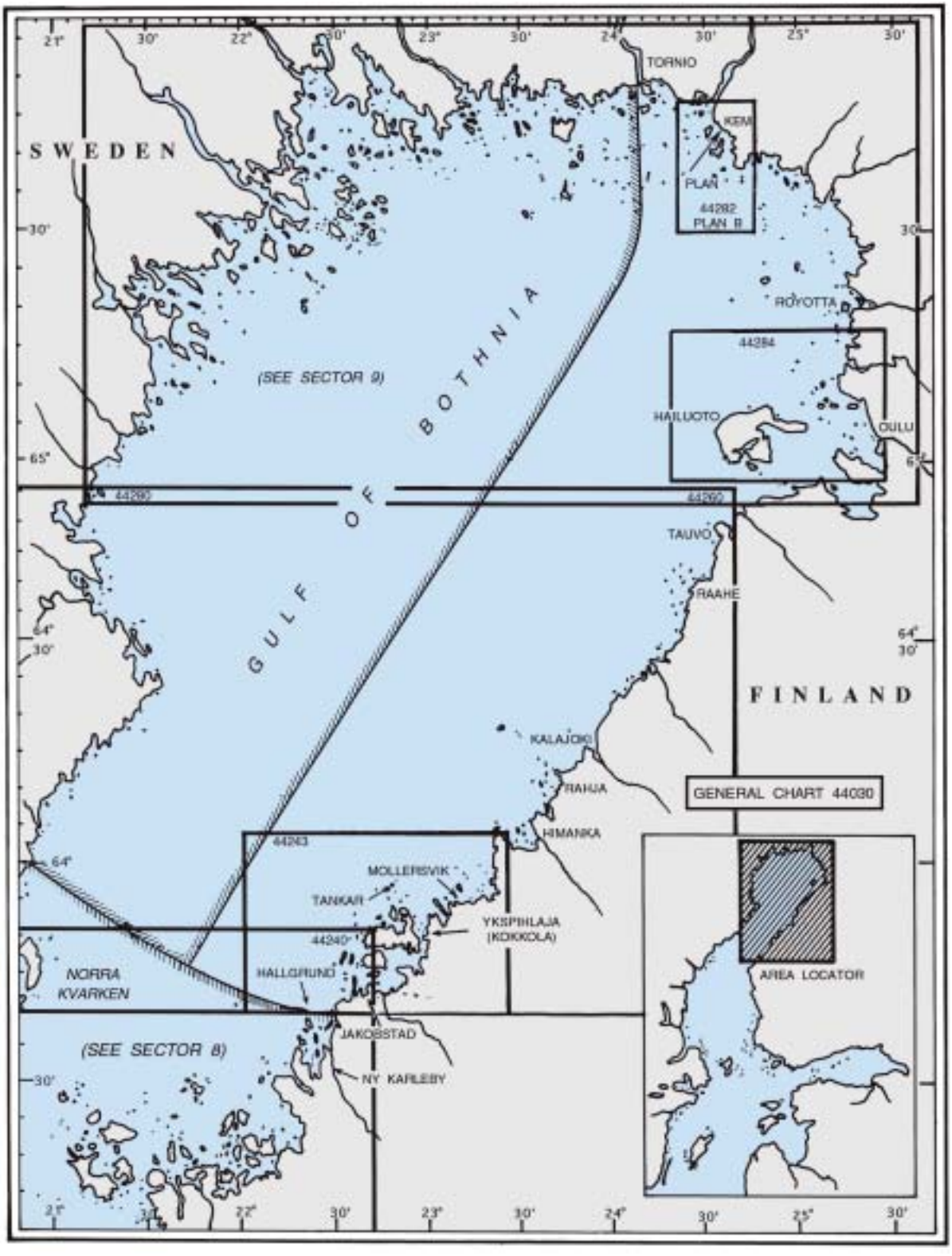
Click on "See Sector" to be hotlinked to that Sector.



Additional chart coverage may be found in CATP2, Catalog of Nautical Charts

SECTOR **10** — CHART INFORMATION

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SECTOR 10

WEST COAST OF FINLAND—HALLGRUND TO THE SWEDISH BORDER

Plan.—This sector describes the Finnish coast bordering on the Gulf of Bothnia between Norra Kvarken and the Swedish border, at the head of the gulf. The descriptive sequence is N from Hallgrund, an islet lying near the coast in the NE part of Norra Kvarken.

General Remarks

10.1 This section of the coast of Finland forms the E shore of Bottenviken, the N part of the Gulf of Bothnia. Like the coast to the S, it is low and has few natural landmarks. Vessels must rely almost exclusively on lighthouses, beacons, and other aids to navigation.

Pilotage.—The Baltic Pilotage Authorities Commission, a regional organization, recommends that vessels constrained by their draft, or vessels not registered in one of the Baltic States and infrequently sailing the area, take a deep-sea pilot.

See Pub. 140, Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea for information on deep-sea pilotage.

Vessels desiring deep-sea pilotage to any coastal pilot station in Finland should send a request at least 24 hours in advance. Deep-sea pilots are normally available from the main pilot stations at Tankar and Vaasa.

Generally, requests for coastal pilots should be sent at least 6 hours in advance, with a confirmation sent 4 hours prior to arrival. During the winter, vessels should request instructions from the nearest coast radio station or VTS Center before reaching the boarding position.

Regulations.—A Vessel Traffic Service (VTS) system, Bothnia VTS, has been established off the NW coast of Finland. This system, which is mandatory, provides vessels with information to assist safe navigation. The VTS Area is divided into four sectors, as follows:

1. Sector A—Routes leading to Kasko (Kaskinen) and Kristinestad (Kristiinankaupunki).
2. Sector B—Routes leading to Vaasa and lying in the S part of Norra Kvarken.
3. Sector C—Routes leading to Kokkola and Pietarsaari.
4. Sector D—Routes leading to Kemi, Oulu, Raaha, and Tornio.

The above sectors extend seaward to the international boundary with Sweden.

All merchant (commercial) and state vessels shall report on VHF channel 67 in accordance with the rules below and keep a continuous listening watch. Pleasure craft, equipped with VHF, are also requested to keep a continuous listening watch on VHF channel 67.

Reports are acknowledged by the VTS Center, which provides information on other vessels, fairway channel and weather conditions, and additional factors affecting safe navigation. The languages used are Finnish, Swedish, and English.

While in Sector B, northbound vessels entering Norra Kvarken, with destinations of Tornio, Rahja, Raahe, Pietarsaari, Oulu, Kokkola, or Kemi, are requested to make an Advance Report when 20 miles S of Nordvalen Light (63˚32'N., 20˚47'E.). The VTS Center will forward the information in the Advance Report to the Pilotage Service and the Icebreaker Service. This Advance Report does not exempt vessels from making other mandatory reports.

All vessels calling at ports within the VTS Area shall report 1 hour prior to arrival at the pilot boarding position. Vessels exempted from pilotage assistance are also obliged to report.

All vessels shall report on approaching the port.

All vessels intending to anchor shall report on anchoring.

All vessels shall report on leaving a port.

All vessels shall report on leaving an anchorage.

All passenger vessels maintaining a regular scheduled service between Finnish and Swedish ports in Norra Kvarken should report only in cases when their time of arrival or departure differs by 30 minutes or more from the normal timetable. Any change of timetables should be reported to the VTS Center in advance.

All vessels entering or leaving a shipping route (channel) but not calling at an official pilot boarding position and all vessels crossing the shipping route shall report 1 hour before they enter or leave the route.

In addition, all vessels shall report when their ETA is changed by 30 minutes or more, when they are navigating in a deviant manner, or when they observe anything affecting safe navigation.

All reports to the VTS Center, including the Advance Report, shall state the following:

1. Vessels name, call sign, and type.
2. Location (Latitude and Longitude or Reporting Point).
3. Course and speed.
4. Port of departure and/or destination and ETA(LT).
5. Whether vessel requires pilotage assistance.
6. Draft in the fairway (meters and centimeters).

See paragraph 1.1 for details concerning restricted areas and semi-restricted areas within Finnish waters.

Caution.—The area has not been thoroughly surveyed. Dangers may exist outside the charted and described off-lying dangers. Most of the coast is fringed by close-lying islands, islets, rocks, and shoals. The recommended channels leading among these dangers to the ports and loading places are described and should be followed according to the draft. Vessels not in possession of local knowledge should proceed with caution when approaching this coast.

Hallgrund to the Swedish Border

10.2 **Hallgrund** (63˚39'N., 22˚25'E.) is a small and low islet lying about 2.5 miles offshore on the W side of the approach to Uusikaarlepyy. It is fronted by shoals on the N and E sides.

10.3 10.5 10.8 10.10 10.13 10.14

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Socklothallan, a large islet with several small islets lying close off its S end, is located close to and extends about 0.3 mile S from Hallgrund. Tuvan, a small islet, lies about 0.2 mile NE of Hallgrund. Torson, a wooded island, lies 2 miles SSW of Hallgrund.

Hallgrund Light is shown from a framework tower standing on Socklothallan. A conspicuous pyramid-shaped tower beacon, 21m high, is situated 0.2 mile S of the light.

A partly-buoyed approach channel, authorized for drafts up to 4m, leads in a S direction and passes E of Hallgrund and Torsen. This channel leads to the anchorage for Uusikaarlepyy. Vessels, with local knowledge, may anchor, in depths of 12 to 14m, clay, about 0.7 mile E of the S end of Torson.

Uusikaarlepyy (63˚31'N., 22˚32'E.) (World Port Index No. 27580), a small town, is situated 3 miles from the mouth of a shallow river estuary and cannot be reached by ocean-going vessels.

Kallan Light (63˚45.2'N., 22˚31.5'E.) is shown from a prominent tower, 19m high, standing on Kallan, an above-water rock lying about 0.5 mile off the S end of an extensive area of foul and rocky ground.

Kallan Light

Hellstenen, another above-water rock, lies on the foul ground about 0.8 mile NNE of Kallan. Storviken, an isolated rock that covers 0.7m, lies 0.5 mile N of Hellstenen.

Nygrundet Light (Pietarsaaren Majakka) (63˚44'N., 22˚32'E.) is shown from a prominent yellow tower standing on a rocky shoal, awash, about 0.7 mile SSE of Kallan Light. A racon is situated at this light.

Alholmsfjarden, within which the port of Pietarsaari is situated, lies about 8 miles NE of Hallgrund and 4 miles SE of Kallan Light. It is part of a large bay filled with numerous wooded islands, rocks, and shoals.

Masskar Tower (63˚44'N., 22˚35'E.), a red structure with a gray pointed roof, stands on Masskar Island, about 2 miles SE of Kallan Light. It is 21m high and prominent from seaward.

The main entrance into Alholmsfjarden leads between Kallan Light and Nygrundet (Pietarsaaren Majakka) Light. The outermost danger on the N side of the approach is an isolated shoal, lying about 1.3 miles NNW of Kallan Light. It has a least depth of 7.5m and is marked by a buoy.

Storgrundet, a detached shoal bank, lies about 3 miles SW of Kallan Light and is the outermost danger on the S side of the approach. It has a least depth of 3.2m and is marked by buoys.

Gammalgrundet, with depths of less than 2m, is an extensive shoal lying on the S side of the entrance. It is situated on a large shallow bank, which extends about 3.5 miles N from the mainland.

Pietarsaari (63˚41'N., 22˚40'E.)

World Port Index No. 27570

10.3 Pietarsaari, formerly known as Jakobstad, is situated within Alholmsfjarden, about 8 miles NE of Hallgrund. This sheltered harbor lies on the NW side of Adholme and E of Adon, a peninsula located 1 mile W.

Depths—Limitations.—The main approach channel from seaward leads between Kallan Light and Nygrundet (Pietarsaaren Majakka) Light. The entrance fairway, which is authorized for drafts up to 9m, passes between numerous islets and shoals fronting the harbor. The principal facilities are desrcibed below.

The Ro-Ro Quay is 160m long and has a depth of 7.4m alongside. Laucko Quay is 150m long and has a depth of 9m alongside. It is used as an oil berth and can handle tankers up to 200m in length.

New Quay is 200m long and has a depth of 7.4m alongside. Allhomen Pier provides a ro-ro berth. It has depths of 4.9m alongside the E side and 6m alongside the W side.

Vessels up to 47,940 dwt, 217m in length, and 9m draft have been accommodated in the harbor.

Aspect.—The main entrance fairway leading to the harbor is indicated by lighted ranges and marked by lights, buoys, and beacons.

The commercial harbor is situated on the NW side of Leppaluoto, a peninsula extending 2 miles N of the town.

The spire of a church and a water tower situated in the S part of the town are conspicuous from seaward. A prominent chimney stands 2.5 miles N of the church spire.

Pilotage.—Pilotage is compulsory. Pilots from Tankar pilot station board vessels about 1.5 miles WSW of Kallan Light. During inclement weather, vessels may be directed to a more sheltered area by VHF. Requests for pilotage should be sent at least 2 hours prior to arrival.

Vessels should send an ETA to the port via Helsinki Radio 24 hours and 6 hours prior to arrival.

Regulations.—The main routes leading to Pietarsaari are situated within Sector C of the Bothnia Vessel Traffic Service (VTS) system. This system operates off the NW coast of Finland and is mandatory. For further details of the VTS system, including reporting procedures, see paragraph 10.1.

At night tankers carrying more than 4,000 tons of oil are prohibited from navigating in the channel between the oil berth and the sea.

Anchorage.—Vessels with local knowledge may anchor N of Masskar, in a depth of 16m, mud. Anchorage may also be

taken in the roadstead about 1.5 miles E of Masskar, in depths of 11 to 12m.

10.4 **Kokkola Light** (64˚00'N., 22˚52'E.), equipped with a racon, is located 17.5 miles NNE of Kallen Light. It is shown from a prominent tower, 23m high, standing on the W side of Kredens Shoal. The coast between is fronted by numerous small islands, islets, rocks, and patches of foul ground extending up to about 11 miles offshore.

Kokkola Light

Orgrundet Beacon (63˚47'N., 22˚33'E.), 12m high, stands on the N extremity of Orgrundet Island, about 2.2 miles NNE of Kallan Light.

Lillgrundet (63˚51'N., 22˚37'E.), marked by range beacons, is situated about 6.4 miles NNE of Kallan Light and surrounded by foul ground.

An inshore channel leading from sea to Ykspihlaja, which is authorized for drafts up to 3m, passes S and E of Lillgrundet. It is suitable only for small vessels during daylight.

Koppargrundet Beacon (63˚55.7'N., 22˚43.1'E.), consisting of a prominent steel mast, stands in an islet about 5.8 miles SW of Kokkola Light.

Tankar (63˚57'N., 22˚51'E.) lies about 3 miles SSW of Kokkola Light and is fronted by shoals extending up to about 1.7 miles seaward. The pilot station is situated on this island. A harbor used by small craft is located at the E side.

A main light is shown from a prominent metal tower, 29m high, standing near the center of the island.

A secondary passage leading from sea to Ykspihlaja, which is authorized for vessels with drafts up to 5.2m, is entered about 2 miles NW of Tankar. It passes NE of the island and joins the primary channel close NE of Repskaret, 3.5 miles SE. The fairway is indicated by a lighted range, buoys, and beacons.

Trullevin (63˚57'N., 23˚03'E.), marked by range beacons, is a small island lying about 5.8 miles SE of Kokkola Light.

An inshore channel leading from sea to Ykspihlaja, which is authorized for drafts up to 2.5m, passes close W of this island. It is indicated by range beacons and is partly buoyed.

Tankar Light

Caution.—An explosives dumping area, which may best be seen on the chart, lies centered 13 miles NW of Kokkola Light.

Kokkola (Ykspihlaja) (63˚51'N., 23˚06'E.)

World Port Index No. 27560

10.5 The harbor of Kokkola (Ykspihlaja), formerly known as Karleby, is situated 2.5 miles W of the town and 20 miles NE of Hallgrund. It lies between the mainland and an island, and is divided into two parts by a breakwater.

The principal imports handled are oil, liquid chemicals, and zinc concentrates. Timber products and zinc are exported.

Winds—Weather.—Winds, from NW through N to NE, sometimes cause a heavy sea in the harbor.

Ice.—Ice obstructions exist from December through April; however, efforts are made to keep the harbor open by means of icebreakers. Ice class restrictions apply in winter.

Tides—Currents.—The water level may vary as much as 0.6m, depending on the wind.

Depths—Limitations.—The main approach channel, which is authorized for drafts up to 11m, leads from the NW and passes close SW of Kokkola Light. Local knowledge is required to enter the harbor. For the secondary entrance channels, see paragraph 10.4. The principal facilities are described below.

Deep Quay is 400m long and has a depth of 11m alongside.

Outokumpu Quay is 210m long and has a depth of 11m alongside.

Kemira Quay, a liquid chemical and gas berth, is 160m long and has a depth of 9.5m alongside.

Oil Quay, at the S side of the breakwater, is 83m long and has a depth of 9.5m alongside.

Shore Quay is situated in the S part of the harbor. The N side is 100m long and has a depth of 7.1m alongside. The S side is 320m long and has a depth of 9.5m alongside.

Ro-Ro Quay, in the S part, is 85m long and has a depth of 6m alongside.

Return to paragraph 8.15

Stone Quay, in the S part, is 137m long and has a depth of 7.1m alongside.

There are facilities for LPG, tanker, general cargo, bulk, and ro-ro vessels. Vessels with drafts up to 11m can be accommodated.

Aspect.—The main fairway channel is entered from NW of Kokkola Light. It is indicated by lighted ranges and marked by lighted buoys and beacons.

Bergbadan Beacon, equipped with a racon, stands on an islet at the S side of the main channel, about 2 miles SSE of Kokkola Light.

A water tower and several prominent tanks and chimneys stand in the vicinity of the harbor area.

Pilotage.—Pilotage is compulsory. The pilot can be contacted by VHF and boards in the vicinity of Kokkola Light. Pilots are provided by the Tankar station. Vessels should send an ETA and request for pilotage 6 hours prior to arrival.

Regulations.—The main routes leading to Kokkola are situated within Sector C of the Bothnia Vessel Traffic Service (VTS) system. This system operates off the NW coast of Finland and is mandatory. For further details of the VTS system, including reporting procedures, see paragraph 10.1.

Inbound tankers carrying more than 4,000 tons of oil are prohibited from entering any of the approach channels at night. Tankers departing the port are permitted to use the main channel at night.

Caution.—It is reported (2000) that the main fairway channel, which is authorized for drafts up to 11m, is being dredged to a depth of 13m. During this operation a reserve channel, authorized for drafts up to 9m, has been established close S of the main fairway.

10.6 Ykskivi Shoal (64˚13'N., 23˚11'E.), lying about 15 miles NNE of Kokkola Light, has a least depth of 4.2m.

Ohtakari (64˚05'N., 23˚24'E.), a small island lying close offshore, is located 15 miles ENE of Kokkola Light. A fishing light is occasionally shown from the E side of this island.

A line of shoals, with depths of less than 10m, extends SE between Ykskivi Shoal and Ohtakari.

Himanka (64˚04'N., 23˚39'E.) (World Port Index No. 27540), lying 6.5 miles ESE Ohtakari, is a loading place situated near the mouth of a river. It lies in the E part of the head of a bay, which is fronted by a chain of small islands, islets, and rocks. There is a wharf with a depth of 1.8m alongside. Anchorages are available in the immediate approach. A fairway channel, authorized for drafts up to 4.2m, leads from seaward as far as the anchorages. Pilotage is compulsory and pilots may be obtained from the station at Tankar.

The intervening coast between Himanka and Rahja, 10 miles NNE, is low and much indented by small bays and inlets. The shore is fronted by numerous small islands and rocks. The 10m curve lies up to 5 miles off this part of the coast.

Ulkokalla (64˚20'N., 23˚27'E.), 6m high, lies 10 miles NE of Ykskivi Shoal and about 10 miles offshore. A main light is shown from a prominent tower, 14m high, standing near the N side of this islet. A house with a red roof is situated close to the light.

Hevoskari (64˚12'N., 23˚34'E.), lying about 7.5 miles NE of Ohtakari, is the outermost of the islands fronting this part of the coast.

Maakalla, 6m high, lies 2 miles SE of Ulkokalla. A light is occasionally shown from this barren islet.

Both of these islets are fronted by foul ground and surrounded by shoals and rocky patches, with depths of less than 10m, lying up to about 3 miles seaward.

Only vessels with local knowledge should pass between Ulkokalla and the mainland shore.

Ulkokalla Light

Rahja (64˚12'N., 23˚44'E.) is a small timber-loading place situated about 28 miles NE of Kokkola. Two quays on the SW side of the harbor provide 265m of commercial berthage, with a depth of 8.5m alongside. Three anchorages, with depths of 6 to 11m, lie within an inlet W of Rahja but are suitable only for small vessels. Pilotage is compulsory. Pilots can be obtained from the Tankar pilot station.

Lepanen (64˚14'N., 23˚39'E.), marked by a light, is the northernmost of a chain of small islands extending from the shore. Aijankallio Beacon, equipped with a racon, is located about 1 mile W of Lepanen. Roima Lighted Beacon, equipped with a racon, is located about 1 mile ENE of Lepanen. The main channel leading from sea to Rahja, which is authorized for drafts up to 8.5m, passes close SW of the island and is indicated by lighted ranges.

Kalajoki (64˚16'N., 23˚56'E.), a small craft harbor, is situated about 7 miles NE of Rahja, at the head of a bay. The coast in this vicinity is fronted by a flat which has depths of less than 5m and extends up to about 4 miles seaward. Above and below-water rocks extend up to about 1.5 miles NNW from Lehtoniemi, the W entrance point of the bay. Local knowledge is required for entry.

Pertunmatala (64˚21'N., 23˚54'E.), lying 4.5 miles NNE of Lehtoniemi, is a small group of above and below-water rocks located about 1.2 miles offshore.

10.7 Nahkiainen Light (64˚37'N., 23˚54'E.) is shown from a prominent tower with a helicopter platform, 24m high, standing on Ulkonahkiainen, a rocky shoal area. Detached shoal patches, with depths of less than 10m, extend up to about 2 miles seaward of the light. They are marked by buoys and may best be seen on the chart.

Nahkiainen Light

An isolated shoal patch, with a depth of 7.3m, lies 4.5 miles SSE of the light.

Raahe Light (64˚39'N., 24˚14'E.), equipped with a racon, is shown from a prominent tower, 24m high, standing 9 miles ENE of Nahkiainen Light.

Raahe Light

Maanahkiainen, a detached shoal, has a least depth of 3.5m and lies about 3 miles SSW of the light.

Caution.—A local magnetic anomaly exists within a small area located 9 miles SSW of Nahkiainen Light.

A local magnetic anomaly exists in the area lying between Nahkiainen Light and Raahe Light.

Raahe (64˚41'N., 24˚25'E.)

World Port Index No. 27530

10.8 Raahe is situated 15 miles ENE of Nahkiainen Light. The coast in this vicinity is fronted by many small islands, islets, and shoals. Rautaruukki, the outer harbor, is protected by detached breakwaters which have been formed by causeways joining several islets. Lapaluoto, the inner harbor, is protected by a number of small islands. The town stands 2.5 miles NE of the port.

Courtesy of Port of Raahe

Raahe

Winds—Weather.—The harbors are, to a great extent, protected against N, E, and S winds and to some degree against W winds.

Ice.—The harbor is kept open year round with icebreaker assistance.

Tides—Currents.—There are no regular tides or currents.

Depths—Limitations.—The main approach channel leading from seaward, which is authorized for drafts up to 8m, passes N of Nahkiainen Light and close S of Raahe Light.

The principal wharves include Lapaluoto Quay, which is 100m long and has a depth of 8m alongside; Import Quay, which is 370m long and has a depth of 8m alongside; Export Quay, which is 270m long and has a depth of 8m alongside; and Oil Quay, which is 207m long and has a depth of 8m alongside. There are facilities for tanker, bulk, ro-ro, and general cargo vessels. Vessels up to 40,000 dwt, 200m in length, and 8m draft can be accommodated in the port.

Aspect.—On approaching the coast, a range of hills, 100 to 120m high, can be seen rising about 7 miles inland, 10 miles SSE of the town.

The main entrance channel is indicated by lighted ranges, lighted buoys, and beacons. Heikinkari, the front range light, is situated 3.4 miles E of Raahe Light and is equipped with a racon.

A church, with a conspicuous tower, stands in the town and a square water tower is situated 0.3 mile SW of it. A prominent chimney, 110m high, stands 2.5 miles SW of the church in the vicinity of the harbor.

Pilotage.—Pilotage is compulsory. Pilots can be contacted by VHF and board vessels about 1.2 miles WSW of Raahe Light (64˚39'N., 24˚14'E.). Vessels must send a message requesting pilotage at least 24 hours and 6 hours in advance. Pilots are provided by the station (Bothnia Pilot) at Hailuoto (see paragraph 10.9).

Regulations.—The main routes leading to Raahe are situated within Sector D of the Bothnia Vessel Traffic Service (VTS) system. This system operates off the NW coast of Finland and is mandatory. For further details of the VTS system, including reporting procedures, see paragraph 10.1.

Anchorage.—Anchorage may be taken seaward of Raahe Light, in depths of 15 to 20m. Vessels, with local knowledge, may also obtain sheltered anchorage S of the fairway, in a depth of 11m, about 0.6 mile NE of Heikinkari front range light.

10.9 The coast extends in a general NE direction from Raahe to Oulu, a distance of 32 miles. The intervening coast is indented by several bays and a number of rivers flow into the sea in this area. The 10m curve lies up to 9 miles offshore.

Tauvo (64˚49'N., 24˚33'E.), a peninsula, projects from the mainland about 8 miles NNE of Raahe. It is fronted by rocks extending up to about 1 mile seaward. A light is shown from a prominent framework structure, 30m high, standing near the NW extremity of this peninsula.

Tauvo Light

Hailuoto (65˚03'N., 24˚46'E.), a low and wooded island, lies with its S extremity located 8.5 miles N of Tauvo.

Marjaniemi Light (65˚02'N., 24˚34'E.) is shown from a prominent tower, 25m high, standing on the W extremity of Hailuoto.

Marjaniemi Light on Hailuoto

Pilotage.—A main pilot station (Bothnia Pilot) and a small craft harbor are situated near Marjaniemi Light. This station provides pilots for Raahe, Oulu, Kemi, and the Tornio/Roytta Channels.

Merikallat (65˚02'N., 24˚05'E.), a shoal area of sand and stones, lies between 10 and 14 miles W of Hailuoto. It has a least depth of 6.7m and is marked by buoys.

Artunmatala (65˚15'N., 24˚07'E.), with a least depth of 8m, lies about 17 miles NNW of Marjaniemi Light. This shoal, which is marked by a buoy, is the outermost patch with a depth of less than 10m lying off this stretch of coast.

Oulu 1 Light (65˚11'N., 24˚30'E.), equipped with a racon, is shown from a prominent tower, 24m high, standing about 9 miles N of Marjaniemi Light.

Oulun Portti Lighted Beacon is situated 3.4 miles W of this light. An isolated shoal patch, with a depth of 8.2m, lies about 0.6 mile S of the lighted beacon and is marked by a buoy.

Oulu 2 Light (65˚10'N., 24˚35'E.) is shown from a prominent tower, 24m high, standing 2.3 miles ESE of Oulu 1 Light.

Oulu 3 Light (65˚09'N., 24˚40'E.) is shown from a prominent tower, 24m high, standig 2.5 miles SE of Oulu 2 Light.

Luodematala Light (65˚10'N., 25˚00'E.), equipped with a racon, is shown from a structure, 29m high, standing 10.3 miles E of Oulu 2 Light.

Oulu 1 Light

Directions.—The waters fronting Oulu are encumbered by numerous islets, rocks, and shoal areas. Recommended routes (channels), which may best be seen on the chart, lead through these dangers and obstructions to the port.

The fairways are indicated by lighted ranges and marked by buoys and beacons.

The main approach channel from seaward, which is authorized for drafts up to 10m, is entered about 24 miles WNW of Marjaniemi Light. This route leads E for about 20 miles and passes close S of Oulun Portti Lighted Beacon and 0.5 mile S of Oulu 1 Light. It then leads in a SE direction for about 24 miles, passing NE of Hailuoto, to the port. The fairway passes close NE of Oulu 2 Light and close SW of Oulu 3 Light.

Two alternate channels, which are authorized for drafts up to 8m, lead N or E of Merikallat shoal and merge together. This

Oulu 2 Light

Oulu 3 Light

route then leads NE for about 7 miles and joins the main channel 1.5 miles SW of Oulu 1 Light.

Another alternate channel, which is authorized for drafts up to 6.1m, leads about 6 miles SE. This route passes close N of Oulu 1 Light and joins the main channel about 0.5 mile NW of Oulu 2 Light.

A secondary channel, which is authorized for drafts up to 4.2m, is entered about 6 miles SW of Marjaniemi Light. This route leads N and NE for about 14 miles. It passes 1.6 miles W of Marjaniemi Light and joins the main channel in the vicinity of Oulu 3 Light.

Another secondary channel, which is authorized for drafts up to 3.5m, is entered about 8 miles NW of Marjaniemi Light. It leads 6 miles ESE and joins the first secondary channel 3.2 miles NNW of Marjaniemi Light. The secondary channels are used only in daylight.

A shallow inshore channel, for small craft with local knowledge, leads from Raahe to Oulu. It passes between the S side of Hailuoto and the mainland.

A main coastal route, which is authorized for drafts up to 10m, leads between the approaches to Oulu and the approaches to Kemi. This channel leaves the main approach route about 4.3 miles SE of Luodematala Light and leads NE and E for 3 miles through a narrow passage. It then leads about 27 miles in a NW direction to a position 4.5 miles W of Harkaletto Light (65˚30'N., 24˚50'E.). From this position the channel leads 7 miles W to join the main approach route for Kemi (see paragraph 10.11).

Caution.—Local magnetic anomalies exist within an area, the limits of which are shown on the chart, centered 9 miles W of Tauvo Light.

Oulu (65˚01'N., 25˚28'E.)

World Port Index No. 27520

10.10 Oulu, formerly known as Uleaborg, lies on the S side of the Oulujoki (Ulea) River, about 10 miles E of Hailuoto. It is an important harbor and industrial city.

Courtesy of Port of Oulu

Oulu

Ice.—The port is normally closed for almost half the year by ice, but icebreakers are available.

Depths—Limitations.—The main channel leading from seaward to the port is authorized for drafts up to 10m (see paragraph 10.9).

The port consists of five harbor areas, which provide facilities for general cargo, ro-ro, bulk, tanker, chemical, and timber-product vessels.

Pateniemi lies 5 miles NNW of the town. A channel, which is authorized for drafts up to 6.3m, leads N to this harbor. There is a berth, 85m long, with a depth of 6.3m alongside. It is reported (2001) that this harbor is no longer open to commercial shipping.

Toppila lies 1.5 miles NW of the town. Toppila Quay, 990m long, is situated on the N side of this harbor and has a depth of 6.1m alongside. Hietasaari Quay, 600m long, is situated on the

S side and has a depth of 6.1m alongside. It is reported (2001) that this harbor is used only for the discharge of cement.

An overhead power cable, with a vertical clearance of 50m, spans the entrance to Toppila harbor.

Vihreasaari lies at the SW extremity of the southernmost islet fronting the town. Oil Quay, 72m long and T-shaped, is situated on the N side of this harbor and has a depth of 10m alongside. Bulk Quay, 150m long, is situated on the S side and has and a depth of 10m alongside.

Oritkari lies 1 mile SW of the town on the S bank of the river. Main Quay, situated at the S side, is 270m long and has a depth of 9m alongside. North Quay, situated at the N side, is 170m long and has a depth of 10m alongside. There are also three ro-ro berths, with depths of 7 to 10m alongside.

Nuottasaari lies 0.5 mile WSW of the town on the S bank of the river. Nuottasaari Quay, 320m long, has a depth of 6.4m alongside. Two chemical quays, situated close W, have depths of 7.5m and 9.5m alongside.

Vessels up to 50,000 dwt, 200m in length, and 10m draft can be accommodated within the port.

Aspect.—The recommended entrance channels are indicated by lighted ranges and marked by lighted buoys and beacons. Several chimneys and silos standing in the vicinity of the harbor at Oritkari are prominent from seaward.

Pilotage.—Pilotage is compulsory. Vessels should send an ETA 24 hours in advance and a confirmation message 6 hours before arrival. Pilots are provided by the main station (Bothnia Pilot) at Hailuoto and may be contacted on VHF channel 13. Pilots board vessels about 10 miles NW of Marjaniemi Light (for drafts of 8 to 10m) and about 8 miles NW of Marjaniemi Light (for drafts of 8m or less) (see paragraph 10.9).

Regulations.—The main routes leading to Oulu are situated within Sector D of the Bothnia Vessel Traffic Service (VTS) system. This system operates off the NW coast of Finland and is mandatory. For further details of the VTS system, including reporting procedures, see paragraph 10.1.

Anchorage.—The roadstead between Oulu and Pateniemi, 5.5 miles N, affords anchorage, in depths of 7 to 8m, mud.

Anchorage may also be taken, in depths of 10 to 14m, clay and sand, about 3 miles WNW of Oulu.

Caution.—Numerous quantities of timber may be found lying in the vicinity of the harbor at Pateniemi.

10.11 The coast between Oulu and Kemi, 49 miles NNW, is low, wooded, and fronted by numerous islands, islets, rocks, and shoals. Some of these dangers lie up to 30 miles seaward of the E shore of the gulf.

Other than the direct approach from seaward, there are two routes leading from Oulu to Kemi. The principal coastal approach route is authorized for drafts up to 10m (see paragraph 10.9). The secondary inshore route, which detours via Martinniemi and Iin Roytta, is authorized for drafts up to 5.5m.

Martinniemi (65˚13'N., 25˚17'E.) (World Port Index No. 27500) is a loading place with a small harbor. It lies about 11 miles N of Oulu and is approached from the Oulu to Kemi inshore route. The entrance channel is authorized for drafts up to 4.2m. Anchorage may be taken, in a depth of 8m, good holding ground, about 0.4 mile off the harbor breakwaters or, in a depth of 16m, about 1.3 miles WSW of the breakwaters. Local knowledge is required. It was reported (1991) that the harbor is no longer open to commercial traffic.

Iin Roytta (65˚16'N., 25˚12'E.), a small craft harbor, lies at the SE end of an island of the same name. It is protected by breakwaters, which extend from the E and S ends of the island, and has depths of 2 to 3m.

An outer anchorage lies about 0.5 mile W of the island and has a depth of 16m. An inner anchorage lies about 0.2 mile E of the S extremity of the island and has a depths of 7 to 9m. The anchorages are approached from the Oulu to Kemi inshore route. The entrance channel is authorized for drafts up to 5.5m. Local knowledge is required.

Harkaletto Light (65˚30'N., 24˚50'E.) is shown from a concrete tower, 11m high, standing on an islet 15 miles SSE of Kemi.

Kemi 1 Light

Kemi 1 Light (65˚23'N., 24˚06'E.) is shown from a prominent tower, 21m high with a helicopter platform, standing in the SW approach to Kemi. A racon is situated at this light.

Rajamatalat, an isolated shoal patch with a least depth of 6.6m, lies about 4 miles N of Kemi 1 Light. Mutkamatala, with a least depth of 5.7m, is a shoal patch lying on the E side of the main approach channel, 8.5 miles NE of Kemi 1 Light.

Kemi 2 Light (65˚30'N., 24˚22'E.) is shown from a mast, with a wind generator, standing 10 miles NE of Kemi 1 Light.

Lallin Moyly, an isolated shoal patch with a depth of 3.5m, lies about 2 miles NNW of Kemi 2 Light.

10.12 Keminkraaseli Light (65˚36.6'N., 24˚33.8'E.) is shown from a prominent concrete tower, 25m high, standing 8 miles NE of Kemi 2 Light. A racon is situated at this light.

Pohjantahti Beacon (65˚37.6'N., 24˚22.4'E.), equipped with a racon, is situated about 7 miles N of Kemi 2 Light.

Directions.—The approach to this section of the Finnish coast is difficult due to the wide belt of islands, islets, shoals, and rocks fronting the coast at the N end of the Gulf of Bothnia. These dangers may best be seen on the chart.

Recommended routes (channels), which may best be seen on the chart, lead through these dangers and obstructions to the

Keminkraaseli Light

ports. The inner fairways are indicated by lighted ranges and marked by buoys and beacons.

From seaward, the land in the approach to Kemi is uniformly low and cannot be distinguished from the offshore islands. However, good references are provided by the lighthouses, both Finnish and Swedish, and by the off-lying islands of Maloren (65˚31'N., 23˚34'E.) and Sandskar (65˚35'N., 23˚45'E.).

The main approach route leading to Kemi, which is authorized for drafts up to 10m, begins in the vicinity of Kemi 1 Light and leads NE and NNE for about 20 miles. It passes close NW of Kemi 2 Light and about 2 miles W of Keminkraaseli Light.

The principal coastal route from Oulu, which is authorized for drafts up to 10m, joins the main channel about 1 mile NNE of Kemi 2 Light (see paragraph 10.9).

Caution.—Local magnetic anomalies exist within an area lying between about 1.2 miles and 6 miles W of Harkaletto Light (65˚30'N., 24˚50'E.).

Kemi (65˚44'N., 24˚34'E.)

World Port Index No. 27410

10.13 The port of Kemi is situated at the mouth of a river that flows into the head of the Gulf of Bothnia. The town, which is fronted by a small craft harbor, is served by two commercial harbors. Ajos, the outer harbor, lies at the SW end of a peninsula, about 4.5 miles SSW of the town. Veitsiluoto, the inner harbor, lies at the SW side of an island, 3 miles SSE of the town.

The principal imports are oil and chemicals. Steel and timber products are exported.

Ice.—The harbor is normally frozen over from the beginning of December to the end of May. Attempts are made to keep the harbor open with the assistance of icebreakers. The Finnish Board of Navigation determines the restrictions and requirements for vessels allowed to enter the harbor at this time.

Tides—Currents.—The tides are negligible, but winds will cause the water level to vary. During S winds, the water level may rise up to 1.5m above normal. During N winds, the level may fall as much as 0.8m.

Depths—Limitations.—The principal entrance channel leading from seaward to the harbor at Ajos is authorized for drafts up to 10m (see paragraph 10.11).

The installations at Ajos are protected by a detached breakwater, which lies at the W side of the harbor. Quay No. 1 has two berths on each side and a ro-ro ramp. The NW side provides 185m of quayage, with depths of 7.3 to 8.3m alongside. The SE side provides 160m of quayage, with a depth of 11.4m alongside.

Quay No. 2 has three berths along the SE side. It provides 290m of quayage, with a depth of 9.3m alongside. Quay No. 3 has two berths along the NW side. It provides 185m of quayage, with a depth of 5.3m alongside. Quay No. 4 has one berth along the SE side. It provides 90m of quayage, with a depth of 5.3m alongside.

The oil jetty, located at the SE side of the harbor, provides a berth, 90m long, with a depth of 11.4m alongside. Tankers up to 244m in length and 10m draft can be accommodated.

The main branch channel leading to Veitsiluoto is authorized for drafts up to 7m.

The harbor at Veitsiluoto is centered around a pier which extends 235m SSW from the island. Berth No. 1, which is 135m long, extends W from the root of the pier; Berth No. 2 and Berth No. 3, situated along the W side of the pier, provide 209m of quayage; Berth No. 4 and Berth No. 5, situated along the E side of the pier, provide 230m of quayage; and Berth No. 6, which is 120m long, is situated close E of the pier. A ro-ro ramp is located at the E side of the pier root. Vessels up to 7m draft can be handled alongside within this harbor.

Aspect.—The inner entrance fairways are indicated by lighted ranges and marked by buoys and beacons.

A church with a tower and the town hall situated at Kemi are prominent from seaward. Several conspicuos chimneys stand in the vicinity of the harbor at Veitsiluoto.

Three conspicuous wind generators, 35m high, stand on the S side of Ajos.

Pilotage.—Pilotage is compulsory. Pilots can be contacted by VHF and board about 11 miles SSW of Ajos, in the vicinity of Kemi 2 Light. Vessels should sent an ETA 24 hours in advance and a confirmation message 6 hours before arrival. Pilots are provided by the main station (Bothnia Pilot) at Hailuoto because Ajos Pilot Station is not permanently manned (see paragraph 10.9).

Regulations.—The main routes leading to Kemi are situated within Sector D of the Bothnia Vessel Traffic Service (VTS) system. This system operates off the NW coast of Finland and is mandatory. For further details of the VTS system, including reporting procedures, see paragraph 10.1.

Anchorage.—Anchorage can be taken, in a depth of 16m, about 0.9 mile SSW of the oil jetty head, close W of the main entrance channel.

10.14 Tornio (Roytta) (65˚50'N., 24˚09'E.), which is situated about 1.5 miles above the mouth of the Torniojoki River,

can only be reached by small craft. Roytta, the commercial harbor for this industrial town, lies about 5 miles S and is situated close to the border between Sweden and Finland, on the SW side of the island of Sellei.

The border between Finnish and Swedish waters in this vicinity extends S, close to the meridian of 24˚10'E.

Ice.—From the middle of January to the beginning of May, the harbor is generally frozen over.

Depths—Limitations.—The main entrance channel leading to Roytta is authorized for drafts up to 8m. It initially follows the main route leading from seaward to Kemi to a position about 6 miles NNE of Kemi 2 Light. The channel then leads in a general NW direction for about 11 miles to the harbor.

There are three main berths, the largest being 185m long, with a depth of 8m alongside. Vessels up to 160m in length and 8m draft can be handled. There are facilities for timber, general cargo, bulk, and LPG vessels.

Aspect.—The main entrance fairway is indicated by lighted ranges and marked by buoys. A conspicuous chimney stands in the vicinity of the harbor.

Pilotage.—Pilotage is compulsory. Pilots are provided by the main station (Bothnia Pilot) at Hailuoto (see paragraph 10.9).

Regulations.—The main routes leading to Tornio are situated within Sector D of the Bothnia Vessel Traffic Service (VTS) system. This system operates off the NW coast of Finland and is mandatory. For further details of the VTS system, including reporting procedures, see paragraph 10.1.

Anchorage.—Anchorage can be obtained, by vessels with local knowledge, in a depth of 8m, close E of the fairway, about 1.2 miles SSE of the front range light.

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